GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: June 30, 2001, 04:20:36 ; Search time 148.97 Seconds
(without alignments)
7287.655 Million cell updates/sec

Title: US-09-403-262A-1
Perfect score: 1729
Sequence: 1 cctctgtccttccccccagg.....cttatttttatttttaatta 1729

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 730101 seqs, 313950809 residues

Total number of hits satisfying chosen parameters: 1460202

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_0601:*
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2: /SIDS1/gcgdata/geneseq/geneseqn/NA1981.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqn/NA1982.DAT:*
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21: /SIDS1/gcgdata/geneseq/geneseqn/NA2000.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	1729	100.0	1729	19	AAV63099	Tomato Ls cDNA. L
c	2	149	8.6	936	22	AAF58252	Oligonucleotide D1
c	3	149	8.6	936	22	AAF58254	Oligonucleotide D1
c	4	149	8.6	936	22	AAF58257	Oligonucleotide D1
c	5	149	8.6	936	22	AAF58259	Oligonucleotide D2
c	6	149	8.6	936	22	AAF58262	Oligonucleotide D2
c	7	149	8.6	938	22	AAF58255	Oligonucleotide D1
	8	145.2	8.4	936	22	AAF58252	Oligonucleotide D1
	9	145.2	8.4	936	22	AAF58254	Oligonucleotide D1
	10	145.2	8.4	936	22	AAF58257	Oligonucleotide D1
	11	145.2	8.4	936	22	AAF58259	Oligonucleotide D2
	12	145.2	8.4	936	22	AAF58262	Oligonucleotide D2
	13	145.2	8.4	938	22	AAF58255	Oligonucleotide D1
	14	133.6	7.7	1602	21	AAC45745	Arabidopsis thalia
	15	133.6	7.7	1964	18	AAT91937	Arabidopsis thalia
	16	125.4	7.3	1779	22	AAF25480	Nucleotide sequenc
	17	123.8	7.2	1779	22	AAF25481	Nucleotide sequenc
	18	115.4	6.7	1642	18	AAT91941	Arabidopsis thalia
	19	115.4	6.7	1643	18	AAT91938	Arabidopsis thalia
	20	105.8	6.1	1368	18	AAT95756	Arabidopsis SCAREC
	21	105.8	6.1	2151	21	AAC39124	Arabidopsis thalia
	22	105.4	6.1	1642	18	AAT91939	Arabidopsis thalia
	23	98.4	5.7	349	21	AAC57114	Pinus radiata tran
	24	96.6	5.6	1366	21	AAC65283	Arabidopsis SCLa1
	25	94.4	5.5	1085	18	AAT95754	Arabidopsis SCAREC
	26	94.4	5.5	1085	21	AAC65281	Arabidopsis SCLa4
	27	92.6	5.4	1636	18	AAT91940	Arabidopsis thalia
	28	84.8	4.9	1093	18	AAT95761	Arabidopsis SCAREC
	29	84.8	4.9	1093	21	AAC65293	Arabidopsis SCLa11
	30	84.6	4.9	1231	18	AAT95755	Arabidopsis SCAREC
	31	84.6	4.9	1231	21	AAC65282	Arabidopsis SCLa3
	32	81.8	4.7	1369	21	AAC49468	Arabidopsis thalia
	33	80	4.6	1427	21	AAC42395	Arabidopsis thalia
	34	78.6	4.5	456	21	AAC56745	Eucalyptus grandis
	35	76	4.4	1464	21	AAC47238	Arabidopsis thalia
	36	68.8	4.0	2635	18	AAT95763	Arabidopsis SCAREC
	37	68.8	4.0	2636	21	AAC65294	Arabidopsis SCLa12
c	38	66.4	3.8	244	22	AAF58238	Oligonucleotide D1
	39	65	3.8	244	22	AAF58238	Oligonucleotide D1
	40	65	3.8	532	21	AAC38626	Arabidopsis thalia
	41	63.4	3.7	2163	18	AAT95753	Arabidopsis SCAREC
	42	63.2	3.7	1328	21	AAC39840	Arabidopsis thalia
	43	62.6	3.6	248	21	AAC56839	Pinus radiata tran
	44	56.4	3.3	745	18	AAT95758	Arabidopsis SCAREC
	45	56.4	3.3	745	21	AAC65291	Arabidopsis SCLa8

ALIGNMENTS

RESULT 1
AAV63099
ID AAV63099 standard; cDNA; 1729 BP.
XX
AC AAV63099;
XX
DT 27-JAN-1999 (first entry)
XX
DE Tomato Ls cDNA.
XX
KW Ls; tomato; side shoot; abscission zone formation; ornamental plant;
KW bushiness; ds.
XX
OS Lycopersicon esculentum.
XX
FH Key Location/Qualifiers
FT CDS 131..1417
FT /*tag= a
FT /product= "Ls"
XX
PN DE19715700-A1.
XX
PD 22-OCT-1998.
XX
PF 15-APR-1997; 97DE-1015700.
XX
PR 15-APR-1997; 97DE-1015700.
XX
PA (THER/) THERES N.
XX
PI Theres N;
XX
DR WPI; 1998-558264/48.
DR P-PSDB; AAW81753.

XX
PT New cDNA sequence responsible for controlling side shoot and/or
PT abscission zone formation - used in sense orientation to increase
PT bushiness of e.g. antirrhinums or in antisense orientation to reduce
PT side shoot formation in e.g. tomatoes
XX
PS Claim 1; Fig 5; 21pp; German.
XX
CC This sequence encodes the Ls protein from Lycopersicon esculentum
CC which is responsible for controlling side shoot and/or abscission zone
CC formation. Ls cDNA can be used in sense orientation to increase the
CC bushiness of ornamental plants (e.g. antirrhinums) or in antisense
CC orientation or in ribozyme form to reduce side shoot formation
CC in crop plants (e.g. tomatoes).
XX
SQ Sequence 1729 BP; 487 A; 372 C; 294 G; 576 T; 0 other;

Query Match 100.0%; Score 1729; DB 19; Length 1729;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1729; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db       1 cctctgtccttccccccaggtccccttttttttcctttctctctctcctttatttctcttt 60

Qy      61 tcataagcatattctttctctctctagggttttcactttcacctgaaatagtgttgttaa 120
Db      61 tcataagcatattctttctctctctagggttttcactttcacctgaaatagtgttgttaa 120

Qy     121 attgaatgatatgttaggatcctttggttcttcatcatctcaatctcaccctcatcatga 180
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Qy     181 tgaagaatcttctgatcatcatcaacagcgtagattcaccgctactgctacaactatcac 240
Db     181 tgaagaatcttctgatcatcatcaacagcgtagattcaccgctactgctacaactatcac 240

Qy     241 caccaccaccatcactacctcaccagctattcaaatccgccagctactcattagctgtgc 300
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Qy     301 ggagttgatttcgcagtccgatttctcggccgcgaaaagactccttactatattatcaac 360
Db     301 ggagttgatttcgcagtccgatttctcggccgcgaaaagactccttactatattatcaac 360

Qy     361 taactcatctccttttggtgattcaactgaacggttagtccatcaatttactcgcgcact 420
Db     361 taactcatctccttttggtgattcaactgaacggttagtccatcaatttactcgcgcact 420

Qy     421 ttcccttcgtctcaaccgctatatatcgtcaaccaccaatcatttcatgacacctgttga 480
Db     421 ttcccttcgtctcaaccgctatatatcgtcaaccaccaatcatttcatgacacctgttga 480

Qy     481 aacaactccaactgattcttcttcttcgtcatcattagctctaattcaatcatcatatct 540
Db     481 aacaactccaactgattcttcttcttcgtcatcattagctctaattcaatcatcatatct 540

Qy     541 atctctaaaccaagttacccctttcataaggtttactcaattaaccgctaatcaagcgat 600
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Db     601 tttagaagcgattaacggtaatcatcaagcaatccacatcgttgatttcgacattaatca 660

Qy     661 cggggttcaatggccaccgttaatgcaagcactagctgatcgttaccctgctcccactct 720
Db     661 cggggttcaatggccaccgttaatgcaagcactagctgatcgttaccctgctcccactct 720

Qy     721 tcgaatcaccggtactggaaatgaccttgataccttcgtagaacaggtgatcgtttagc 780
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Qy     781 taaatttgctcactcattagggttgagatttcaattccatcctctttatatagccaataa 840
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Db     841 taaccacgatcacgatgaagatccttctattatttcctccattgtactactccctgatga 900

Qy     901 aaccctagctatcaactgtgttttctacctccaccgccttttaaaagaccgcgaaaagtt 960
Db     901 aaccctagctatcaactgtgttttctacctccaccgccttttaaaagaccgcgaaaagtt 960

Qy     961 aaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaatcgcggagaa 1020
Db     961 aaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaatcgcggagaa 1020

Qy    1021 ggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgttggattatta 1080
Db    1021 ggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgttggattatta 1080

Qy    1081 tacagctgtgtttgattcactggaagctacattgccaccgggtagtcgagagaggatgac 1140
Db    1081 tacagctgtgtttgattcactggaagctacattgccaccgggtagtcgagagaggatgac 1140

Qy    1141 agttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatggaaggagataa 1200
Db    1141 agttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatggaaggagataa 1200

Qy    1201 aaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgaggagttgtggatt 1260
Db    1201 aaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgaggagttgtggatt 1260

Qy    1261 tagtaatgttgctttaagccctttgcattatcacaagctaagcttctttgagacttca 1320
Db    1261 tagtaatgttgctttaagccctttgcattatcacaagctaagcttctttgagacttca 1320

Qy    1321 ttatccttctgaaggctatcaactcggagtttcgagtaattctttcttcttaggttggca 1380
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Qy    1381 aaatcaacccctttctccatctcgtcttggcgttgagaaaaactatcaaatagccaact 1440
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Qy    1441 tcagagggtaattaagactactgatagtttaggagggatctgaagaaaacgcgtggagtg 1500
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Qy    1501 aaaaccctaaataaccagattttctaatgaagttgtagtagtagaaatttgcatggtgaa 1560
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Qy    1681 gtctttgtataacgcaagatcttgatcaacttatttttattttaatta 1729
Db    1681 gtctttgtataacgcaagatcttgatcaacttatttttattttaatta 1729
```

RESULT 2
AAF58252/c
ID AAF58252 standard; DNA; 936 BP.
XX
AC AAF58252;
XX
DT 24-APR-2001 (first entry)

XX
DE Oligonucleotide D1835.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 4 A; 139 C; 10 G; 7 T; 776 other;

Query Match 8.6%; Score 149; DB 22; Length 936;
Best Local Similarity 1.0%; Pred. No. 3e-25;
Matches 8; Conservative 503; Mismatches 268; Indels 0; Gaps 0;

Qy 951 gcgaaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaa 1010
Db 789 GCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 730

Qy 1011 tcgcggagaaggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgt 1070
Db 729 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWW 670

Qy 1071 tggattattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgag 1130
Db 669 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 610

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Qy 1371 taggttggcaaaatcaaccccttttctccatctcgtcttggcgttgagaaaaactatcaa 1430

Db 369 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 310

Qy 1431 atagccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaac 1490
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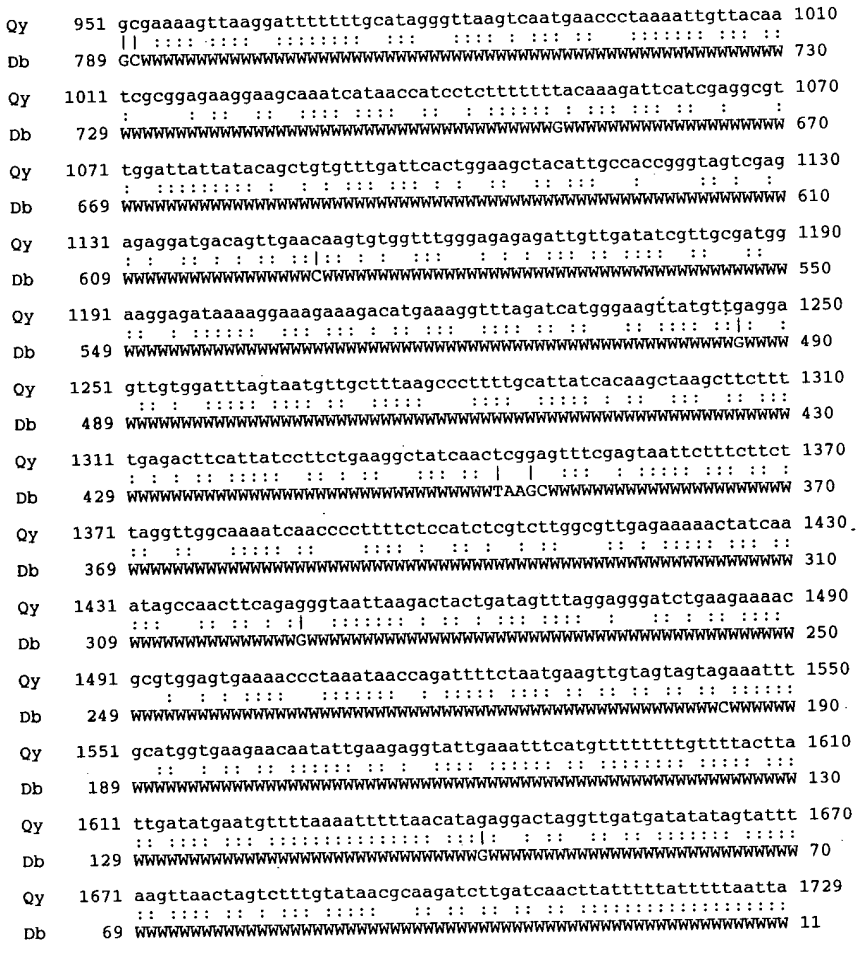
Qy 1551 gcatggtgaagaacaatattgaagaggtattgaaatttcatgttttttttgttttactta 1610
Db 189 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 130

Qy 1611 ttgatatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtattt 1670
Db 129 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWW 70

Qy 1671 aagttaactagtctttgtataacgcaagatcttgatcaacttatttttattttaatta 1729
Db 69 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 11

RESULT 3
AAF58254/c
ID AAF58254 standard; DNA; 936 BP.
XX
AC AAF58254;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1875.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 4 A; 144 C; 7 G; 5 T; 776 other;

Query Match 8.6%; Score 149; DB 22; Length 936;
Best Local Similarity 1.0%; Pred. No. 3e-25;
Matches 8; Conservative 503; Mismatches 268; Indels 0; Gaps 0;



RESULT 4
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ID AAF58257 standard; DNA; 936 BP.
XX
AC AAF58257;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1954.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 5 A; 142 C; 7 G; 6 T; 776 other;

Query Match 8.6%; Score 149; DB 22; Length 936;
Best Local Similarity 1.0%; Pred. No. 3e-25;
Matches 8; Conservative 503; Mismatches 268; Indels 0; Gaps 0;

```
Qy   1611 ttgatatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtattt 1670
          :: :::: ::: ::::::::::::::: :::|:  : ::  :: :: ::::::: :::::
Db    129 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWW 70

Qy   1671 aagttaactagtctttgtataacgcaagatcttgatcaacttatttttattttttaatta 1729
          :: :::: :: : ::: ::::   :: :: :: :: :: ::::::::::::::::::::
Db     69 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 11


RESULT   5
AAF58259/c
ID   AAF58259 standard; DNA; 936 BP.
XX
AC   AAF58259;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D2004.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface  -
XX
PS   Example 6; Page 128; 159pp; English.
XX
CC   The present invention relates to a composition comprising two nucleic
CC   acids each containing an electron-transfer group (ETM) having
CC   different redox potentials. The invention is used for electronic
CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 936 BP; 6 A; 138 C; 8 G; 8 T; 776 other;


  Query Match             8.6%;  Score 149;  DB 22;  Length 936;
  Best Local Similarity   1.0%;  Pred. No. 3e-25;
  Matches    8;  Conservative  503;  Mismatches  268;  Indels    0;  Gaps    0;

Qy    951 gcgaaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaa 1010
          || :::: ::::  :::::::::  :::   :::: : ::: ::   :::::::: ::: ::
Db    789 GCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 730

Qy   1011 tcgcggagaaggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgt 1070
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Db    729 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWW 670

Qy   1071 tggattattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgag 1130
          :  ::::::::: :  : : ::: ::: : :  ::  :: :::   :     :: :  :
Db    669 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 610

Qy   1131 agaggatgacagttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatgg 1190
          : :  :: : : :: ::|:: : :  :::   : : : ::: :: :::: ::   ::
Db    609 WWWWWWWWWWWWWWWWWWWCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 550

Qy   1191 aaggagataaaaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgagga 1250
          ::  : :::::  ::: ::: : :: :::  :::: :: ::   :: :::: ::|:  :
Db    549 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWW 490

Qy   1251 gttgtggatttagtaatgttgctttaagccctttgcattatcacaagctaagcttcttt 1310
            :: :  ::::: :::: ::  :::::    ::::  ::::: : ::  :::  :: :::
Db    489 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 430

Qy   1311 tgagacttcattatccttctgaaggctatcaactcggagtttcgagtaattctttcttct 1370
          : : : :: :::::  :: : ::   ::: :: |  |  :::  : ::::: ::: :: :
Db    429 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWTAAGCWWWWWWWWWWWWWWWWWW 370

Qy   1371 taggttggcaaaatcaacccctttttctccatctcgtcttggcgttgagaaaaactatcaa 1430
          ::  ::   ::::: ::    :::: :  :: :  : ::    :: : ::::: ::: ::
Db    369 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 310

Qy   1431 atagccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaac 1490
          :::   :: :: : :|  ::::::: : :: : ::: ::::  :   :: : : :: ::::
Db    309 WWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 250

Qy   1491 gcgtggagtgaaaaccctaaataaccagattttctaatgaagttgtagtagtagaaattt 1550
             :  : : ::::   :::::::  : ::::: :::: :: :: :: :: :: ::::::
Db    249 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWW 190

Qy   1551 gcatggtgaagaacaatattgaagaggtattgaaatttcatgttttttttgttttactta 1610
             ::  : :: :: :::::: :: :  :::: :::::: :: :::::::: ::::: :::
Db    189 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 130

Qy   1611 ttgatatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtattt 1670
          :: :::: ::: ::::::::::::::: :::|:  : ::  :: :: ::::::: :::::
Db    129 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWW 70

Qy   1671 aagttaactagtctttgtataacgcaagatcttgatcaacttatttttattttttaatta 1729
          :: :::: :: : ::: ::::   :: :: :: :: :: ::::::::::::::::::::
Db     69 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 11


RESULT   6
AAF58262/c
ID   AAF58262 standard; DNA; 936 BP.
XX
AC   AAF58262;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D2007.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface  -
```

XX
PS Example 6; Page 128; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 5 A; 139 C; 10 G; 6 T; 776 other;

Query Match 8.6%; Score 149; DB 22; Length 936;
Best Local Similarity 1.0%; Pred. No. 3e-25;
Matches 8; Conservative 503; Mismatches 268; Indels 0; Gaps 0;

```
Qy    951 gcgaaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaa 1010
          || :::: :::: :::::::: ::: :::: : ::: :: :::::::: ::: ::
Db    789 GCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 730

Qy   1011 tcgcggagaaggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgt 1070
          :    : ::  ::  :::: :::: :: : :::::: : ::: ::: ::  :    :
Db    729 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWW 670

Qy   1071 tggattattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgag 1130
          :  ::::::::: :  : : ::: ::: : :  ::  :: :::   :     :: :  :
Db    669 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 610

Qy   1131 agaggatgacagttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatgg 1190
          : :  :: : : :: ::|:: : :  :::   : : : ::: :: ::::  ::   ::
Db    609 WWWWWWWWWWWWWWWWCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 550

Qy   1191 aaggagataaaaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgagga 1250
          ::  : ::::::  ::: ::: : :: :::  :::: :: ::   :: :::: ::|:  :
Db    549 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWW 490

Qy   1251 gttgtggatttagtaatgttgctttaagccctttgcattatcacaagctaagcttcttt 1310
          :: :  ::::: :::: ::  :::::    ::::  ::::: : ::  :::  :: :::
Db    489 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 430

Qy   1311 tgagacttcattatccttctgaaggctatcaactcggagtttcgagtaattctttcttct 1370
          : : : :: :::::  :: : ::   ::: :: |  |  :::  : ::::: ::: :: :
Db    429 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWTAAGCWWWWWWWWWWWWWWWWWWWWW 370

Qy   1371 taggttggcaaaatcaaccccttttctccatctcgtcttggcgttgagaaaaactatcaa 1430
          ::  ::   ::::: ::    :::: :  :: :  : ::    :: : ::::: ::: ::
Db    369 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 310

Qy   1431 atagccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaac 1490
          :::   :: :: : :|  :::::::: : :: : ::: :::  :   :: : :: ::::
Db    309 WWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 250

Qy   1491 gcgtggagtgaaaaccctaaataaccagattttctaatgaagttgtagtagtagaaattt 1550
            :  : : ::::   :::::::  : ::::: :::: :: :: :: :: :: ::::::
Db    249 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWW 190

Qy   1551 gcatggtgaagaacaatattgaagaggtattgaaatttcatgttttttttgttttactta 1610
            ::  : :: :: :::::: :: :  :::: :::::: :: :::::::: ::::: :::
Db    189 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 130

Qy   1611 ttgatatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtattt 1670
          :: :::: ::: ::::::::::::::::: :::|:  : ::  :: :: ::::::: :::::
Db    129 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWW 70

Qy   1671 aagttaactagtctttgtataacgcaagatcttgatcaacttatttttattttttaatta 1729
          :: :::: :: : ::: :::::   :: :: :: :: :: :: ::::::::::::::::::
Db     69 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 11
```

RESULT 7
AAF58255/c
ID AAF58255 standard; DNA; 938 BP.

XX
AC AAF58255;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1876.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 938 BP; 4 A; 144 C; 9 G; 5 T; 776 other;

Query Match 8.6%; Score 149; DB 22; Length 938;
Best Local Similarity 1.0%; Pred. No. 3e-25;
Matches 8; Conservative 503; Mismatches 268; Indels 0; Gaps 0;

```
Qy    951 gcgaaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaa 1010
          || :::: :::: :::::::: ::: :::: : ::: :: :::::::: ::: ::
Db    789 GCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 730

Qy   1011 tcgcggagaaggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgt 1070
          :    : ::  ::  :::: :::: :: : :::::: : ::: ::: ::  :    :
Db    729 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWW 670

Qy   1071 tggattattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgag 1130
          :  ::::::::: :  : : ::: ::: : :  ::  :: :::   :     :: :  :
Db    669 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 610

Qy   1131 agaggatgacagttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatgg 1190
          : :  :: : : :: ::|:: : :  :::   : : : ::: :: ::::  ::   ::
Db    609 WWWWWWWWWWWWWWWWCWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 550

Qy   1191 aaggagataaaaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgagga 1250
          ::  : ::::::  ::: ::: : :: :::  :::: :: ::   :: :::: ::|:  :
Db    549 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWW 490

Qy   1251 gttgtggatttagtaatgttgctttaagccctttgcattatcacaagctaagcttcttt 1310
          :: :  ::::: :::: ::  :::::    ::::  ::::: : ::  :::  :: :::
Db    489 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 430

Qy   1311 tgagacttcattatccttctgaaggctatcaactcggagtttcgagtaattctttcttct 1370
          : : : :: :::::  :: : ::   ::: :: |  |  :::  : ::::: ::: :: :
```

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Db    429 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWTAAGCWWWWWWWWWWWWWWWWWWWWWWW 370

Qy   1371 taggttggcaaaatcaaccccttttctccatctcgtcttggcgttgagaaaaactatcaa 1430
          ::  ::   ::::: ::    :::: :  :: :  : ::    :: : ::::: ::: ::
Db    369 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 310

Qy   1431 atagccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaac 1490
          :::   :: :: : :|  ::::::: : :: : ::: :::  :   :: : :: ::::
Db    309 WWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 250

Qy   1491 gcgtggagtgaaaaccctaaataaccagattttctaatgaagttgtagtagtagaaattt 1550
               : : ::::   :::::::  : ::::: :::: :: :: :: :: :: ::::::
Db    249 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWCWWWWWW 190

Qy   1551 gcatggtgaagaacaatattgaagaggtattgaaatttcatgttttttttgttttactta 1610
            ::  : :: :: :::::: :: :  :::: :::::: :: :::::::: ::::: :::
Db    189 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 130

Qy   1611 ttgatatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtattt 1670
          :: :::: ::: :::::::::::::: :::|:  : ::  :: :: ::::::: :::::
Db    129 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWGWWWWWWWWWWWWWWWWWWWWWWWWW 70

Qy   1671 aagttaactagtctttgtataacgcaagatcttgatcaacttatttttattttttaatta 1729
          :: :::: :: : ::: :::::   :: :: :: :: :: ::::::::::::::::::::
Db     69 WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW 11


RESULT   8
AAF58252
ID   AAF58252 standard; DNA; 936 BP.
XX
AC   AAF58252;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D1835.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
XX
PD   01-FEB-2001.
XX
PF   26-JUL-2000; 2000WO-US20476.
XX
PR   26-JUL-1999;   99US-0145695.
PR   17-MAR-2000; 2000US-0190259.
XX
PA   (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI   Umek RM;
XX
DR   WPI; 2001-159728/16.
XX
PT   Nucleic acids containing electron-transfer group, useful as labels in
PT   hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT   a single surface  -
XX
PS   Example 6; Page 127; 159pp; English.
XX
CC   The present invention relates to a composition comprising two nucleic
CC   acids each containing an electron-transfer group (ETM) having
CC   different redox potentials. The invention is used for electronic
CC   detection of nucleic acids, especially of substitutions (mismatches)
CC   and single-nucleotide polymorphisms, e.g. for genotyping,
CC   monitoring gene expression.
XX
SQ   Sequence 936 BP; 4 A; 139 C; 10 G; 7 T; 776 other;

  Query Match             8.4%;  Score 145.2;  DB 22;  Length 936;
  Best Local Similarity   0.8%;  Pred. No. 2.3e-24;
  Matches    6;  Conservative  501;  Mismatches  269;  Indels    0;  Gaps    0;

Qy    954 aaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaatcg 1013
          :::: :::: :::::::: :::  :::: : ::: ::.  :::::::: ::: :::
Db     12 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 71

Qy   1014 cggagaaggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgttgg 1073
             : ::  ::  :::: ::::  ::| : :::::::: ::: ::: ::  :    ::
Db     72 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwww 131

Qy   1074 attattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgagaga 1133
          ::::::::: :  : : ::: ::: : :  ::  :: :::   :      :: :  : : :
Db    132 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 191

Qy   1134 ggatgacagttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatggaag 1193
             ::|: : :: :: :: : :  :::   : : : ::: :: ::::  ::   ::  ::
Db    192 wwwwgwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 251

Qy   1194 gagataaaaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgaggagtt 1253
           : ::::::  ::: ::: : :: :::  :::: :: ::    : :::: :: :  : ::
Db    252 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwww 311

Qy   1254 gtggatttagtaatgttgctttaagccctttgcattatcacaagctaagcttcttttga 1313
           :  ::::: :::: ::  :::::    ::::  ::::: : ::  :::  :: :::: :
Db    312 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 371

Qy   1314 gacttcattatccttctgaaggctatcaactcggagtttcgagtaattctttcttcttag 1373
           : :: :::::  :: : ::|  ||: :: :  : :::  : ::::: ::: :: :::
Db    372 wwwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 431

Qy   1374 gttggcaaaatcaacccctttttctccatctcgtcttggcgttgagaaaaactatcaaata 1433
           ::   ::::: ::    :::: :  :: :  : ::    :: : ::::: ::: :::::
Db    432 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 491

Qy   1434 gccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaacgcg 1493
             |:: :: : :   ::::::: : :: : ::: ::::  :   :: : :: ::::
Db    492 wwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 551

Qy   1494 tggagtgaaaaccctaaataaccagattttctaatgaagttgtagtagtagaaatttgca 1553
          :  : : ::::   ::::::: : ::::: :::: :: :  :: :: :: ::::::  :
Db    552 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwwwwwwww 611

Qy   1554 tggtgaagaacaatattgaagaggtattgaaatttcatgttttttttgttttacttattg 1613
          :  : :: :: :::::: :: :  :::: :::::: :: :::::::: ::::: :::::
Db    612 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 671

Qy   1614 atatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtatttaag 1673
          :::: ::: ::::::::: ::::: ::: :  : ::  :: :: ::::::: :::::::
Db    672 wwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 731

Qy   1674 ttaactagtctttgtataacgcaagatcttgatcaacttatttttattttaatta 1729
          :::: :: : ::: :::::   :: :: :: :: :: ::::::::::::::::::
Db    732 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 787


RESULT   9
AAF58254
ID   AAF58254 standard; DNA; 936 BP.
XX
AC   AAF58254;
XX
DT   24-APR-2001  (first entry)
XX
DE   Oligonucleotide D1875.
XX
KW   Electron-transfer group; ETM; mismatch; genotyping;
KW   gene expression; ss.
XX
OS   Synthetic.
XX
PN   WO200107665-A2.
```

XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 4 A; 144 C; 7 G; 5 T; 776 other;

Query Match 8.4%; Score 145.2; DB 22; Length 936;
Best Local Similarity 0.8%; Pred. No. 2.3e-24;
Matches 6; Conservative 501; Mismatches 269; Indels 0; Gaps 0;

Qy 954 aaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaatcg 1013
Db 12 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 71

Qy 1014 cggagaaggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgttgg 1073
Db 72 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 131

Qy 1074 attattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgagaga 1133
Db 132 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 191

Qy 1134 ggatgacagttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatggaag 1193
Db 192 wwwwgwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 251

Qy 1194 gagataaaaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgaggagtt 1253
Db 252 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwww 311

Qy 1254 gtggatttagtaatgttgctttaagccctttgcattatcacaagctaagcttctttttga 1313
Db 312 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 371

Qy 1314 gacttcattatccttctgaaggctatcaactcggagtttcgagtaattctttcttcttag 1373
Db 372 wwwwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 431

Qy 1374 gttggcaaaatcaacccctttttctccatctcgtcttggcgttgagaaaaactatcaaata 1433
Db 432 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 491

Qy 1434 gccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaacgcg 1493
Db 492 wwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 551

Qy 1494 tggagtgaaaaccctaaataaccagattttctaatgaagttgtagtagtagaaatttgca 1553
Db 552 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwwwwwwwwwww 611

Qy 1554 tggtgaagaacaatattgaagaggtattgaaatttcatgttttttttgttttacttattg 1613
Db 612 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 671

Qy 1614 atatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtatttaag 1673
Db 672 wwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 731

Qy 1674 ttaactagtctttgtataacgcaagatcttgatcaacttatttttattttttaatta 1729
Db 732 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 787

RESULT 10
AAF58257
ID AAF58257 standard; DNA; 936 BP.
XX
AC AAF58257;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1954.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 5 A; 142 C; 7 G; 6 T; 776 other;

Query Match 8.4%; Score 145.2; DB 22; Length 936;
Best Local Similarity 0.8%; Pred. No. 2.3e-24;
Matches 6; Conservative 501; Mismatches 269; Indels 0; Gaps 0;

Qy 954 aaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaatcg 1013
Db 12 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 71

Qy 1014 cggagaaggaagcaaatcataaccatcctctttttttacaaagattcatcgaggcgttgg 1073
Db 72 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 131

Qy 1074 attattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgagaga 1133

```
             ::::::::: :  : : ::: ::: : :  ::  :: :::    :      :: :  : : :
Db       132 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 191

Qy      1134 ggatgacagttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatggaag 1193
                ::|: : :: :: :: : :  :::    : : : ::: :: ::::  ::    :: ::
Db       192 wwwwgwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 251

Qy      1194 gagataaaaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgaggagtt 1253
              : ::::::  ::: ::: : :: :::  :::: :: ::     : :::: :: :  : ::
Db       252 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwww 311

Qy      1254 gtggatttagtaatgttgctttaagccctttttgcattatcacaagctaagcttcttttga 1313
               :  ::::: :::: ::  :::::     ::::  ::::: : ::  :::  :: :::: :
Db       312 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 371

Qy      1314 gacttcattatccttctgaaggctatcaactcggagtttcgagtaattctttcttcttag 1373
              : :: :::::  :: : ::|  ||: :: :    : :::  : ::::: ::: :: :::
Db       372 wwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 431

Qy      1374 gttggcaaaatcaacccctttctccatctcgtcttggcgttgagaaaaactatcaaata 1433
              ::   ::::: ::    :::: :  :: :  : ::     :: : ::::: ::: :::::
Db       432 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 491

Qy      1434 gccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaacgcg 1493
                |:: :: : :   ::::::: : :: : ::: ::::  :    :: : :: ::::
Db       492 wwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 551

Qy      1494 tggagtgaaaaccctaaataaccagattttctaatgaagttgtagtagtagaaatttgca 1553
             :  : : ::::   :::::::  : ::::: :::: :: :  :: :: :: ::::::  :
Db       552 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwwwwwwwwwwwww 611

Qy      1554 tggtgaagaacaatattgaagaggtattgaaatttcatgtttttttgttttacttattg 1613
             :  : :: :: :::::: :: :  :::: :::::: :: :::::::: ::::: :::::
Db       612 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 671

Qy      1614 atatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtatttaag 1673
             :::: ::: ::::::::: ::::: ::: :  : ::  :: :: ::::::: :::::::
Db       672 wwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 731

Qy      1674 ttaactagtctttgtataacgcaagatcttgatcaacttatttttatttttaatta 1729
             :::: :: : ::: :::::    :: :: :: :: :: :::::::::::::::::
Db       732 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 787
```

RESULT 11
AAF58259
ID AAF58259 standard; DNA; 936 BP.
XX
AC AAF58259;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D2004.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 128; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 6 A; 138 C; 8 G; 8 T; 776 other;

```
  Query Match             8.4%;  Score 145.2;  DB 22;  Length 936;
  Best Local Similarity   0.8%;  Pred. No. 2.3e-24;
  Matches    6;  Conservative  501;  Mismatches  269;  Indels    0;  Gaps    0;

Qy       954 aaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaatcg 1013
              :::: ::::  ::::::::  :::    :::: : ::: ::    ::::::: ::: :::
Db        12 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 71

Qy      1014 cggagaaggaagcaaatcataaccatcctcttttttacaaagattcatcgaggcgttgg 1073
                  : ::  ::  :::: ::::  ::| : :::::::: ::: ::: ::  :     ::
Db        72 wwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 131

Qy      1074 attattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgagaga 1133
             ::::::::: :  : : ::: ::: : :  ::  :: :::    :      :: :  : : :
Db       132 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 191

Qy      1134 ggatgacagttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatggaag 1193
                ::|: : :: :: :: : :  :::    : : : ::: :: ::::  ::    :: ::
Db       192 wwwwgwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 251

Qy      1194 gagataaaaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgaggagtt 1253
              : ::::::  ::: ::: : :: :::  :::: :: ::     : :::: :: :  : ::
Db       252 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwww 311

Qy      1254 gtggatttagtaatgttgctttaagccctttttgcattatcacaagctaagcttcttttga 1313
               :  ::::: :::: ::  :::::     ::::  ::::: : ::  :::  :: :::: :
Db       312 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 371

Qy      1314 gacttcattatccttctgaaggctatcaactcggagtttcgagtaattctttcttcttag 1373
              : :: :::::  :: : ::|  ||: :: :    : :::  : ::::: ::: :: :::
Db       372 wwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 431

Qy      1374 gttggcaaaatcaacccctttctccatctcgtcttggcgttgagaaaaactatcaaata 1433
              ::   ::::: ::    :::: :  :: :  : ::     :: : ::::: ::: :::::
Db       432 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 491

Qy      1434 gccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaacgcg 1493
                |:: :: : :   ::::::: : :: : ::: ::::  :    :: : :: ::::
Db       492 wwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 551

Qy      1494 tggagtgaaaaccctaaataaccagattttctaatgaagttgtagtagtagaaatttgca 1553
             :  : : ::::   :::::::  : ::::: :::: :: :  :: :: :: ::::::  :
Db       552 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwwwwwwwwwwwww 611

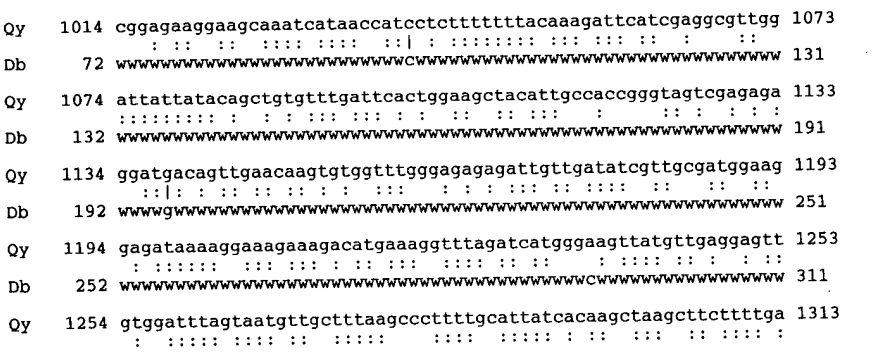
Qy      1554 tggtgaagaacaatattgaagaggtattgaaatttcatgtttttttgttttacttattg 1613
             :  : :: :: :::::: :: :  :::: :::::: :: :::::::: ::::: :::::
Db       612 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 671

Qy      1614 atatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtatttaag 1673
             :::: ::: ::::::::: ::::: ::: :  : ::  :: :: ::::::: :::::::
Db       672 wwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 731

Qy      1674 ttaactagtctttgtataacgcaagatcttgatcaacttatttttatttttaatta 1729
             :::: :: : ::: :::::    :: :: :: :: :: :::::::::::::::::
Db       732 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 787
```

RESULT 12
AAF58262
ID AAF58262 standard; DNA; 936 BP.
XX
AC AAF58262;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D2007.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 128; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.
XX
SQ Sequence 936 BP; 5 A; 139 C; 10 G; 6 T; 776 other;

Query Match 8.4%; Score 145.2; DB 22; Length 936;
Best Local Similarity 0.8%; Pred. No. 2.3e-24;
Matches 6; Conservative 501; Mismatches 269; Indels 0; Gaps 0;



RESULT 13
AAF58255
ID AAF58255 standard; DNA; 938 BP.
XX
AC AAF58255;
XX
DT 24-APR-2001 (first entry)
XX
DE Oligonucleotide D1876.
XX
KW Electron-transfer group; ETM; mismatch; genotyping;
KW gene expression; ss.
XX
OS Synthetic.
XX
PN WO200107665-A2.
XX
PD 01-FEB-2001.
XX
PF 26-JUL-2000; 2000WO-US20476.
XX
PR 26-JUL-1999; 99US-0145695.
PR 17-MAR-2000; 2000US-0190259.
XX
PA (CLIN-) CLINICAL MICRO SENSORS INC.
XX
PI Umek RM;
XX
DR WPI; 2001-159728/16.
XX
PT Nucleic acids containing electron-transfer group, useful as labels in
PT hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT a single surface -
XX
PS Example 6; Page 127; 159pp; English.
XX
CC The present invention relates to a composition comprising two nucleic
CC acids each containing an electron-transfer group (ETM) having
CC different redox potentials. The invention is used for electronic
CC detection of nucleic acids, especially of substitutions (mismatches)
CC and single-nucleotide polymorphisms, e.g. for genotyping,
CC monitoring gene expression.

```
XX
SQ   Sequence 938 BP; 4 A; 144 C; 9 G; 5 T; 776 other;

  Query Match             8.4%;  Score 145.2;  DB 22;  Length 938;
  Best Local Similarity   0.8%;  Pred. No. 2.3e-24;
  Matches    6;  Conservative  501;  Mismatches  269;  Indels    0;  Gaps    0;

Qy    954 aaaagttaaggatttttttgcatagggttaagtcaatgaaccctaaaattgttacaatcg 1013
          :::: ::::  ::::::::  :::    :::: : ::: ::   ::::::: ::: :::
Db     12 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 71

Qy   1014 cggagaaggaagcaaatcataaccatcctcttttttacaaagattcatcgaggcgttgg 1073
              : ::  ::  :::: ::::  ::| : :::::::: ::: ::: ::  :    ::
Db     72 wwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 131

Qy   1074 attattatacagctgtgtttgattcactggaagctacattgccaccgggtagtcgagaga 1133
          ::::::::: :  : : ::: ::: : :  ::  :: :::    :      :: :  : : :
Db    132 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 191

Qy   1134 ggatgacagttgaacaagtgtggtttgggagagagattgttgatatcgttgcgatggaag 1193
             ::|: : :: :: :: : :  :::    : : : ::: :: ::::  ::   :: ::
Db    192 wwwwgwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 251

Qy   1194 gagataaaaggaaagaaagacatgaaaggtttagatcatgggaagttatgttgaggagtt 1253
            : ::::::  ::: ::: : :: :::  :::: :: ::       : :::: :: :  : ::
Db    252 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwww 311

Qy   1254 gtggatttagtaatgttgctttaagccctttttgcattatcacaagctaagcttcttttga 1313
            :  ::::: :::: ::  :::::     ::::  ::::: : ::  :::  :: :::: :
Db    312 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 371

Qy   1314 gacttcattatccttctgaaggctatcaactcggagtttcgagtaattctttcttcttag 1373
            : :: :::::  :: : ::|    ||: :: :    : :::   : ::::: ::: :: :::
Db    372 wwwwwwwwwwwwwwwwwwwwgcttawwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 431

Qy   1374 gttggcaaaatcaacccctttttctccatctcgtcttggcgttgagaaaaactatcaaata 1433
            ::   ::::: ::     :::: :  :: :  : ::     :: : ::::: ::: :::::
Db    432 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 491

Qy   1434 gccaacttcagagggtaattaagactactgatagtttaggagggatctgaagaaaacgcg 1493
              |:: :: : :   ::::::: : :: : ::: ::::  :     :: : :: :: ::::
Db    492 wwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 551

Qy   1494 tggagtgaaaaccctaaataaccagattttctaatgaagttgtagtagtagaaatttgca 1553
           :   : : ::::    :::::::  : ::::: :::: :: :    :: :: :: ::::::  :
Db    552 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwgwwwwwwwwwwwwwwwwww 611

Qy   1554 tggtgaagaacaatattgaagaggtattgaaatttcatgtttttttgttttacttattg 1613
           :   : :: :: :::::: :: :   :::: :::::: :: :::::::: ::::: :::::
Db    612 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 671

Qy   1614 atatgaatgttttaaaatttttaacatagaggactaggttgatgatatatagtatttaag 1673
          :::: ::: ::::::::: ::::: ::: :   : ::   :: :: ::::::: :::::::
Db    672 wwwwwwwwwwwwwwwwwwwwwwcwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 731

Qy   1674 ttaactagtctttgtataacgcaagatcttgatcaacttatttttatttttaatta 1729
          :::: :: : ::: :::::     :: :: :: :: :: ::::::::::::::::::
Db    732 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 787


RESULT  14
AAC45745
ID   AAC45745 standard; DNA; 1602 BP.
XX
AC   AAC45745;
XX
DT   18-OCT-2000  (first entry)
XX
DE   Arabidopsis thaliana DNA fragment SEQ ID NO: 47609.
XX
KW   Hybridisation assay; genetic mapping; gene expression control;
KW   protein identification; signal transduction pathway;
KW   metabolic pathway; promoter; termination sequence; ss.
XX
OS   Arabidopsis thaliana.
XX
PN   EP1033405-A2.
XX
PD   06-SEP-2000.
XX
PF   25-FEB-2000; 2000EP-0301439.
XX
PR   25-FEB-1999;   99US-0121825.
PR   05-MAR-1999;   99US-0123180.
PR   09-MAR-1999;   99US-0123548.
PR   23-MAR-1999;   99US-0125788.
PR   25-MAR-1999;   99US-0126264.
PR   29-MAR-1999;   99US-0126785.
PR   01-APR-1999;   99US-0127462.
PR   06-APR-1999;   99US-0128234.
PR   08-APR-1999;   99US-0128714.
PR   16-APR-1999;   99US-0129845.
PR   19-APR-1999;   99US-0130077.
PR   21-APR-1999;   99US-0130449.
PR   23-APR-1999;   99US-0130510.
PR   23-APR-1999;   99US-0130891.
PR   28-APR-1999;   99US-0131449.
PR   30-APR-1999;   99US-0132048.
PR   30-APR-1999;   99US-0132407.
PR   04-MAY-1999;   99US-0132484.
PR   05-MAY-1999;   99US-0132485.
PR   06-MAY-1999;   99US-0132486.
PR   06-MAY-1999;   99US-0132487.
PR   07-MAY-1999;   99US-0132863.
PR   11-MAY-1999;   99US-0134256.
PR   14-MAY-1999;   99US-0134218.
PR   14-MAY-1999;   99US-0134219.
PR   14-MAY-1999;   99US-0134221.
PR   14-MAY-1999;   99US-0134370.
PR   18-MAY-1999;   99US-0134768.
PR   19-MAY-1999;   99US-0134941.
PR   20-MAY-1999;   99US-0135124.
PR   21-MAY-1999;   99US-0135353.
PR   24-MAY-1999;   99US-0135629.
PR   25-MAY-1999;   99US-0136021.
PR   27-MAY-1999;   99US-0136392.
PR   28-MAY-1999;   99US-0136782.
PR   01-JUN-1999;   99US-0137222.
PR   03-JUN-1999;   99US-0137528.
PR   04-JUN-1999;   99US-0137502.
PR   07-JUN-1999;   99US-0137724.
PR   08-JUN-1999;   99US-0138094.
PR   10-JUN-1999;   99US-0138540.
PR   10-JUN-1999;   99US-0138847.
PR   14-JUN-1999;   99US-0139119.
PR   16-JUN-1999;   99US-0139452.
PR   16-JUN-1999;   99US-0139453.
PR   17-JUN-1999;   99US-0139492.
PR   18-JUN-1999;   99US-0139454.
PR   18-JUN-1999;   99US-0139455.
PR   18-JUN-1999;   99US-0139456.
PR   18-JUN-1999;   99US-0139457.
PR   18-JUN-1999;   99US-0139458.
PR   18-JUN-1999;   99US-0139459.
PR   18-JUN-1999;   99US-0139460.
PR   18-JUN-1999;   99US-0139461.
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PR   18-JUN-1999;   99US-0139763.
PR   21-JUN-1999;   99US-0139817.
PR   22-JUN-1999;   99US-0139899.
PR   23-JUN-1999;   99US-0140353.
PR   23-JUN-1999;   99US-0140354.
PR   24-JUN-1999;   99US-0140695.
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PR 28-JUN-1999; 99US-0140823.
PR 29-JUN-1999; 99US-0140991.
PR 30-JUN-1999; 99US-0141287.
PR 01-JUL-1999; 99US-0141842.
PR 01-JUL-1999; 99US-0142154.
PR 02-JUL-1999; 99US-0142055.
PR 06-JUL-1999; 99US-0142390.
PR 08-JUL-1999; 99US-0142803.
PR 09-JUL-1999; 99US-0142920.
PR 12-JUL-1999; 99US-0142977.
PR 13-JUL-1999; 99US-0143542.
PR 14-JUL-1999; 99US-0143624.
PR 15-JUL-1999; 99US-0144005.
PR 16-JUL-1999; 99US-0144085.
PR 16-JUL-1999; 99US-0144086.
PR 19-JUL-1999; 99US-0144325.
PR 19-JUL-1999; 99US-0144331.
PR 19-JUL-1999; 99US-0144332.
PR 19-JUL-1999; 99US-0144333.
PR 19-JUL-1999; 99US-0144334.
PR 19-JUL-1999; 99US-0144335.
PR 20-JUL-1999; 99US-0144352.
PR 20-JUL-1999; 99US-0144632.
PR 20-JUL-1999; 99US-0144884.
PR 21-JUL-1999; 99US-0144814.
PR 21-JUL-1999; 99US-0145086.
PR 21-JUL-1999; 99US-0145088.
PR 22-JUL-1999; 99US-0145085.
PR 22-JUL-1999; 99US-0145087.
PR 22-JUL-1999; 99US-0145089.
PR 22-JUL-1999; 99US-0145192.
PR 23-JUL-1999; 99US-0145145.
PR 23-JUL-1999; 99US-0145218.
PR 23-JUL-1999; 99US-0145224.
PR 26-JUL-1999; 99US-0145276.
PR 27-JUL-1999; 99US-0145913.
PR 27-JUL-1999; 99US-0145918.
PR 27-JUL-1999; 99US-0145919.
PR 28-JUL-1999; 99US-0145951.
PR 02-AUG-1999; 99US-0146386.
PR 02-AUG-1999; 99US-0146388.
PR 02-AUG-1999; 99US-0146389.
PR 03-AUG-1999; 99US-0147038.
PR 04-AUG-1999; 99US-0147204.
PR 04-AUG-1999; 99US-0147302.
PR 05-AUG-1999; 99US-0147192.
PR 05-AUG-1999; 99US-0147260.
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PR 20-AUG-1999; 99US-0149722.
PR 20-AUG-1999; 99US-0149723.
PR 20-AUG-1999; 99US-0149929.
PR 23-AUG-1999; 99US-0149902.
PR 23-AUG-1999; 99US-0149930.
PR 25-AUG-1999; 99US-0150566.
PR 26-AUG-1999; 99US-0150884.
PR 27-AUG-1999; 99US-0151065.
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PR 27-AUG-1999; 99US-0151080.
PR 30-AUG-1999; 99US-0151303.
PR 31-AUG-1999; 99US-0151438.
PR 01-SEP-1999; 99US-0151930.
PR 07-SEP-1999; 99US-0152363.
PR 10-SEP-1999; 99US-0153070.
PR 13-SEP-1999; 99US-0153758.
PR 15-SEP-1999; 99US-0154018.
PR 16-SEP-1999; 99US-0154039.
PR 20-SEP-1999; 99US-0154779.
PR 22-SEP-1999; 99US-0155139.
PR 23-SEP-1999; 99US-0155486.
PR 24-SEP-1999; 99US-0155659.
PR 28-SEP-1999; 99US-0156458.
PR 29-SEP-1999; 99US-0156596.
PR 04-OCT-1999; 99US-0157117.
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PR 06-OCT-1999; 99US-0157865.
PR 07-OCT-1999; 99US-0158029.
PR 08-OCT-1999; 99US-0158232.
PR 12-OCT-1999; 99US-0158369.
PR 13-OCT-1999; 99US-0159293.
PR 13-OCT-1999; 99US-0159294.
PR 13-OCT-1999; 99US-0159295.
PR 14-OCT-1999; 99US-0159329.
PR 14-OCT-1999; 99US-0159330.
PR 14-OCT-1999; 99US-0159331.
PR 14-OCT-1999; 99US-0159637.
PR 14-OCT-1999; 99US-0159638.
PR 18-OCT-1999; 99US-0159584.
PR 21-OCT-1999; 99US-0160741.
PR 21-OCT-1999; 99US-0160767.
PR 21-OCT-1999; 99US-0160768.
PR 21-OCT-1999; 99US-0160770.
PR 21-OCT-1999; 99US-0160814.
PR 21-OCT-1999; 99US-0160815.
PR 22-OCT-1999; 99US-0160980.
PR 22-OCT-1999; 99US-0160981.
PR 22-OCT-1999; 99US-0160989.
PR 25-OCT-1999; 99US-0161404.
PR 25-OCT-1999; 99US-0161405.
PR 25-OCT-1999; 99US-0161406.
PR 26-OCT-1999; 99US-0161359.
PR 26-OCT-1999; 99US-0161360.
PR 26-OCT-1999; 99US-0161361.
PR 28-OCT-1999; 99US-0161920.
PR 28-OCT-1999; 99US-0161992.
PR 28-OCT-1999; 99US-0161993.
PR 29-OCT-1999; 99US-0162142.

Query Match 7.7%; Score 133.6; DB 21; Length 1602;
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Matches 448; Conservative 0; Mismatches 389; Indels 21; Gaps 6;

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Qy   1154 tggtttgggagagagattgttgatatcgttgcgatggaaggagataaaaggaaagaaaga 1213
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RESULT 15
AAT91937
ID AAT91937 standard; DNA; 1964 BP.
XX
AC AAT91937;
XX
DT 19-MAR-1998 (first entry)
XX
DE Arabidopsis thaliana gibberellin insensitivty gene gai.
XX
KW Gibberellin insensitivity; gai; plant growth inhibition;
KW dwarf phenotype; lodging resistance; increased yield;
KW flowering regulation; bolting inhibition; spinach; lettuce;
KW antibody; identification; probe; primer; antisense; sense;
KW expression regulation; co-suppression; rice;
KW Bakane disease resistance; ss.
XX
OS Arabidopsis thaliana.
XX
PN WO9729123-A2.
XX
PD 14-AUG-1997.
XX
PF 12-FEB-1997; 97WO-GB00390.
XX
PR 12-FEB-1996; 96GB-0002796.
XX
PA (INNE-) INNES CENT INNOVATIONS LTD JOHN.
XX
PI Carol P, Harberd NP, Peng J, Richards DE;
XX
DR WPI; 1997-415295/38.
DR P-PSDB; AAW30792.
XX
PT Nucleic acid encoding gibberellin inhibitor GAI and related
PT antisense sequences - used to create tall, or particularly, dwarf
PT plants, especially crops such as maize, rice and wheat
XX
PS Claim 2; Fig 3; 76pp; English.
XX
CC The present sequence encodes the Arabidopsis thaliana gibberellin
CC insensitivity (gai) gene product (GAI), the expression of which
CC inhibits plant growth. However the inhibition is antagonised by
CC gibberellin (GA), while gai expression confers a dwarf phenotype
CC that is insensitive to GA. Manipulating gai and GAI expression can
CC produce tall or dwarf plants, particularly the latter for increased
CC resistance to lodging and increased yield. It may also allow
CC regulation of flowering, i.e. plants remain in the vegetative state
CC until treated with GA, useful to inhibit bolting in spinach and
CC lettuce. GAI can be used to raise specific antibodies for
CC identifying homologous proteins or genes in other species. gai
CC fragments can also be used as probes or primers to identify and
CC clone related sequences, or in the preparation of antisense or
CC sense expression regulating (co-suppressing) sequences. Rice plants
CC that express GAI may be resistant to Bakane disease. Manipulation
CC of gai and GAI makes it possible to tailor the degree of dwarfism
CC and GA sensitivity to particular crops or situations.
XX
SQ Sequence 1964 BP; 489 A; 426 C; 474 G; 575 T; 0 other;

Query Match 7.7%; Score 133.6; DB 18; Length 1964;
Best Local Similarity 52.2%; Pred. No. 1.3e-21;
Matches 448; Conservative 0; Mismatches 389; Indels 21; Gaps 6;

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Qy    620 aatcatcaagcaatccacatcgttgatttcgacattaatcacggggttcaatggccaccg 679
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